



PLANT PURCHASING SPECIFICATION
BHOPAL

BP 53480

REV NO. 03

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SUPERSEDES

BP 53480 Rev.02

ACTIVATED ALUMINA

1. GENERAL:

This specification governs the quality of activated alumina manufactured by precipitation technique. The material shall be solid with grainy porous structure free from extraneous impurities.

2. APPLICATION:

Used for removing moisture and acidic impurities from insulating oil in transformers.

3. COMPLIANCE WITH NATIONAL STANDARDS:

Assistance has been drawn from IS:9700.

"Specification for Activated Alumina".

4. PARTICLE SIZE:

Shall be specified on the order. However, the standard size of the particle is 5 to 8 mm diameter spheres, both inclusive.

5. TEST METHODS:

As per IS:9700.

6. SAMPLING AND APPROVAL:

As per the requirements of IS:9700.

7. PROPERTIES:

7.1 Adsorption Capacity at 30 deg.C:

At 60% RH, by wt: 19 - 23%.

7.2 Bulk Density:

750 - 850 Gms/Litre.

Revision :

Reviewed & Reaffirmed

Issued by :

Sharda

STANDARDS AND MATERIALS GROUP
TECHNICAL SERVICES DEPARTMENT

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7.3 Bed Crushing Strength:

88 - 96%.

7.4 Loss on Attrition:

0.2 - 0.75%.

7.5 Loss on Ignition (250 - 1000 deg.C):

6 - 8%.

7.6 Chemical, Analysis%

Al₂O₃ (By Difference) : 91-94

Na₂O : 0.2-0.4

Fe₂O₃ : 0.1-0.2

SiO₂ : 0.1-0.2

CoCl₂ : Nil

CaCl₂ : Nil

7.7 Surface Area:

350 - 390 m²/gm, (By any conventional method)

7.8 Pore Volume:

0.4 - 0.5 cc/gm (By any conventional method)

8. TEST CERTIFICATE:

Unless otherwise specified, three copies of test certificates shall be supplied.

In addition, the supplier shall ensure to enclose one copy of the test certificate alongwith their despatch documents to facilitate quick clearance of the material.

The test certificate shall bear the following information:-

BP 53480 : Activated Alumina
Rev.03

BHEL Order No.
Manufacturer's/Supplier's Name
Batch No/Lot No.

Date of Manufacture & Expiry.

Test results of clauses 4, 6 and 7.



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9. KEEPING PROPERTY:

When stored under normal conditions in original air tight Containers, the material shall retain the properties prescribed in this specification for a period of not less than 12 months after the date of manufacture which shall be subsequent to the date of placing the order.

10. PACKING AND MARKING:

The material shall be suitably packed in clean, dry and sealed polyethylene bags which shall be further packed in airtight metal containers of 10 kg weight to prevent damage in transit.

Each container shall be legibly marked with the following information:

BP 53480 : Activated Alumina

BHEL Order No.

Manufacturer's/Supplier's Name.

Particle Size.

Batch/Lot No.

Net Weight.

Gross Weight.

Date of Packing.